

CLAIMS

1. A packet data scheduling method used in a radio communication apparatus transmitting packet data to a plurality of communicating parties using a plurality of subchannels, the method comprising:

a first step of setting a total transmission rate for the plurality of communicating parties;

a second step of calculating a traffic amount for each of the plurality of communicating parties in accordance with the total transmission rate and a weighting factor assigned to each of the plurality of communicating parties;

a third step of assigning the plurality of subchannels to the plurality of communicating parties in accordance with channel quality up to upper limits of the traffic amounts;

a fourth step of calculating a transmission rate for a subchannel that is not assigned to any of the plurality of communicating parties in the third step among the plurality of subchannels; and

a fifth step of updating the total transmission rate using the transmission rate calculated in the fourth step,

wherein the second step, the third step, the fourth step and the fifth step are performed repeatedly until the number of subchannels that are not assigned to any of the plurality of communicating parties in the third step is equal to or less than a threshold.

2. A radio communication apparatus that transmits packet data to a plurality of communicating parties using a plurality of subchannels, the apparatus comprising:

5 a scheduler that performs scheduling for the packet data, the scheduling comprising:

a first step of setting a total transmission rate for the plurality of communicating parties;

10 a second step of calculating a traffic amount for each of the plurality of communicating parties in accordance with the total transmission rate and a weighting factor assigned to each of the plurality of communicating parties;

15 a third step of assigning the plurality of subchannels to the plurality of communicating parties in accordance with channel quality up to upper limits of the traffic amounts;

20 a fourth step of calculating a transmission rate for a subchannel that is not assigned to any of the plurality of communicating parties in the third step among the plurality of subchannels; and

a fifth step of updating the total transmission rate using the transmission rate calculated in the fourth step; and

25 an assignment section that assigns the packet data to the plurality of subchannels according to the scheduling,

wherein the scheduler performs the second step, the third step, the fourth step and the fifth step repeatedly until the number of subchannels that are not assigned to any of the plurality of communicating parities in the
5 third step is equal to or less than a threshold.